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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/772,333 | 01/29/2001 | James A. Barnard | 82007RLO | 8676 |

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Patent Legal Staff
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EXAMINER

HOFFMAN, BRANDON S

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2136

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|--------------------------------|--|
| Office Action Summary | Application No. 09/772,333 | Applicant(s) BARNARD ET AL. | |
| | Examiner Brandon Hoffman | Art Unit 2136 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments filed October 27, 2004, have been considered and are persuasive. However, a new ground of rejection has been made in view of ECMA-267 2nd edition in view of Owa, and further in view of Iwasaki et al..

Rejections

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by ECMA-267 2nd edition (hereinafter, ECMA).

Regarding claim 14, ECMA teaches a uniquely identified optical disc, comprising:

- A preformed ID which is formed in the ATIP signal (Annex J, SID code is contained in the ATIP information to prevent writing of unqualified media); and
- A unique ID which is written to the main channel data at a known absolute sector address on the optical disc (Annex H, BCA, section H.1).

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Claim Rejections - 35 USC § 103

5. Claims 1-9, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over ECMA-267 2nd edition (hereinafter, ECMA) in view of Owa (U.S. Patent No. 6,687,826).

Regarding claims 1 and 2, ECMA teaches a method for copy-protecting information recorded on an optical disc/a copy-protected optical disc, comprising the steps of:

- Forming a master disc that includes a preformed ID (Annex J, the SID code);
- Forming a number of optical discs which have the preformed ID duplicated from the master disc (Annex H, first section, the BCA is added after the disk manufacturing process); and
- Writing a unique identification number onto such optical disc (Annex H, first section, the BCA is unique to each CD).

ECMA does not teach writing an encrypted program onto the optical disc wherein the encryption of such program is based upon the preformed ID and the unique ID.

Owa teaches writing an encrypted program onto the optical disc wherein the encryption of such program is based upon the preformed ID and the unique ID (fig. 6, ref. num 11).

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It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine writing an encrypted program onto the optical disc wherein the encryption of such program is based upon the preformed ID and the unique ID, as taught by Owa, with the method of ECMA. It would have been obvious for such modifications because this increases security of the key. A large problem with encryption/decryption systems is the safety of the key in transit. This method transports the 'would-be key' by using data that is already on the optical disk.

Regarding claim 3, the combination of ECMA in view of Owa teaches further including the step of reading and decrypting the encrypted program using the preformed ID and the unique ID read from the disc (see fig. 6, ref. num 15, fig. 9, ref. num 53 and col. 8, lines 23-30 of Owa).

Regarding claim 4, the combination of ECMA in view of Owa teaches in which the unique ID is recorded at one or more known absolute sector addresses on the disc (see Annex H, BCA, section H.1 of ECMA).

Regarding claim 5, the combination of ECMA in view of Owa teaches in which the unique ID is recorded into the second session (see Annex H, BCA, section H.1 of ECMA, since the SID code was pressed during a mastering process, and the BCA was recorded after the mastering (during the forming of multiple discs), the BCA is recorded in the second session).

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Regarding claim 6, the combination of ECMA in view of Owa teaches in which the disc further includes a recordable area (see fig. 2 and col. 4, lines 1-7 of Owa).

Regarding claims 7 and 9, the examiner takes official notice that supplied software and/or data is also pressed into the first session, and in which an encrypting program is pressed onto the optical disc.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine supplied software and/or data pressed into the first session and an encrypting program is pressed onto the optical disc, with the method of ECMA/Owa. It would have been obvious for such modifications because software/data (including encryption programs) that are pressed at the manufacturing plant are maintained through any replication process onto all copies. This is desirable because the software/data that is supposed to be supplied to the end user will be on all copies made by the manufacturing plant.

Regarding claim 8, ECMA teaches a copy-protection system including the copy-protected optical disc of claim 1 (Annex H and Annex J).

ECMA does not teach including a computer, an encrypting program capable of reading the preformed ID and the unique ID from the copy-protected optical disc of claim 1 and encrypting a customer program using them.

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Owa teaches including a computer, an encrypting program capable of reading the preformed ID and the unique ID from the copy-protected optical disc of claim 1 and encrypting a customer program using them (fig. 6, ref. num 11).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine writing an encrypted program onto the optical disc wherein the encryption of such program is based upon the preformed ID and the unique ID, as taught by Owa, with the system of ECMA. It would have been obvious for such modifications because this increases security of the key. A large problem with encryption/decryption systems is the safety of the key in transit. This method transports the 'would-be key' by using data that is already on the optical disk.

Regarding claim 11, ECMA teaches a method of copy protection using a Programmable CD-ROM and a decrypting program, which includes the steps of:

- Reading the preformed ID and the unique ID of the Programmable CD-ROM (Annex H, BCA and Annex J, SID code);
- Placing the original executable into the computer's RAM memory and allowing it to execute and removing the original executable from the computer's memory and storage upon completion of the executable (Official Notice is taken for placing an executable into RAM for operation and then removing the executable after operation is complete. This is well known and performed when an optical medium is placed in the reading unit of a computer. RAM is a temporary storage for applications to run in which said applications are removed after their use).

ECMA does not teach combining the preformed ID and the unique ID to form a decryption key or using the decryption key to decrypt the original executable file.

Owa teaches combining the preformed ID and the unique ID to form a decryption key (fig. 9, ref. num 53) and using the decryption key to decrypt the original executable file (col. 8, lines 23-30).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine combining the preformed ID and the unique ID to form a decryption key and using the key to decrypt files, as taught by Owa, with the method of ECMA. It would have been obvious for such modifications because this increases security of the key. A large problem with encryption/decryption systems is the safety of the key in transit. This method transports the 'would-be key' by using data that is already on the optical disk.

Regarding claim 12, the combination of ECMA in view of Owa teaches with the decrypting program reading the preformed ID from the ATIP signal (see Annex J of ECMA, SID code is contained in the ATIP information to prevent writing of unqualified media).

Regarding claim 13, the combination of ECMA in view of Owa teaches in which valid values of the unique ID correspond to only a small part of the range of possible

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numbers (see Annex H, of ECMA, BCA can comprise a serial number, which is a definite amount of numbers).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over ECMA-267 2nd edition (hereinafter, ECMA) in view of Owa (USPN '826), and further in view of Iwasaki et al. (U.S. Patent No. 6,748,358).

Regarding claim 10, the combination of ECMA in view of Owa teaches all the limitations of claim 8, above. However, the combination of ECMA in view of Owa does not teach in which the encrypting program is located on another computer system or on a network.

Iwasaki et al. teaches in which the encrypting program is located on another computer system or on a network (col. 4, lines 33-50).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the encrypting program located on another computer or on a network, as taught by Iwasaki et al., with the system of ECMA/Owa. It would have been obvious for such modifications because an attacker could reverse engineer the encryption program if it were stored on the medium. By having the encryption program remote from the medium, a potential hacker does not know what is being done with the data on the disk in order to provide encryption.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon Hoffman whose telephone number is 571-272-3863. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brandon Hoffman

BH

[Signature]
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